

State Route 189: International Border to Grand Avenue Study

November 2014

Prepared by
Arizona Department of Transportation
206 S. 17th Ave.
Phoenix, AZ 85007

In cooperation with
U.S. Department of Transportation
Federal Highway Administration



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1.0 Introduction

The Arizona Department of Transportation (ADOT) and the Federal Highway Administration are working on a study evaluating roadway and traffic improvements on SR 189 (locally known as Mariposa Road) a 3.75-mile, ADOT-maintained highway in the City of Nogales in Santa Cruz County, Arizona, from the U.S./Mexico border to Grand Avenue. The study evaluates SR 189 between the Mariposa Port of Entry and Grand Avenue, which includes the Mariposa Road traffic interchange, Frank Reed Road and Grand Avenue intersections. The Mariposa Port of Entry, one of the busiest cargo ports along the U.S./Mexico border, has recently been expanded and increased travel demand along the route is anticipated.

The study includes traffic operational analysis for current and future year (2040) conditions, recommended improvements along SR 189, ramp improvements at SR 189 and Interstate 19 traffic interchange, an Environmental Assessment (EA) that will document environmental considerations related to those recommendations and Design Concept Report (DCR) to assess potential improvements to accommodate and improve traffic flow throughout the study area.

2.0 Public Meeting

ADOT and FHWA held a public meeting on Nov. 18, 2014. Additional outreach included stakeholder meetings. This section represents a summary of this outreach.

2.1 Stakeholder Outreach

The study team met with the following stakeholders between Sept. – Oct. 2014 to inform them of the upcoming public meeting and review the alternatives.

- Santa Cruz County on Sept. 10, 2014, at Santa Cruz County Public Works, 275 Rio Rico Drive, Nogales, AZ 85648
- City of Nogales on Sept. 11, 2014, at City of Nogales Public Works Department, 1450 N Hohokam Drive, Nogales, AZ 85621
- Nogales Unified School District on Sept. 25, 2014, at Nogales Unified School District, 1905 N. Apache Boulevard, Nogales, AZ 85621
- Fresh Produce Association of the Americas on Sept. 25, 2014, at Fresh Produce Association of the Americas, 590 E Frontage Road, Nogales, AZ 85621
- Holy Cross Hospital on Oct. 3, 2014, at Holy Cross Hospital, 1171 W. Target Range Road, Nogales, AZ 85621

- Nogales-Santa Cruz County Chamber of Commerce on Oct. 3, 2014, at the Nogales-Santa Cruz County Chamber of Commerce, 123 W Kino Park, Nogales AZ 85621
- Trucking Industry on Oct. 3, 2014, at Fresh Produce Association of the Americas, 590 E Frontage Road, Nogales, AZ 85621
- Port Authority Board on Oct. 3, 2014, at Fresh Produce Association of the Americas, 590 E Frontage Road, Nogales, AZ 85621
- Pima Association of Governments on Oct. 28, 2014, at Pima Association of Governments, 1 E. Broadway Boulevard, Tucson, AZ 85701

2.2 Public Meeting Notification

The study team prepared and distributed an invitation inviting the public to provide comments. The invitation was mailed the week of Nov. 3, 2014, to property owners, occupants and businesses within the study area. An electronic copy of the invitation was sent to elected officials, emergency service providers and schools the week of Nov. 10, 2014. A copy of the invitation (Appendix A) is included.

2.3 Newspaper Advertisements

Newspaper advertisements providing the date and location of the public meeting were published as follows:

- Nogales International (Nov. 4, 2014)

A copy of the advertisement can be found in Appendix B.

2.4 Public Meeting

The purpose of the public meeting was to provide additional information about the study, present the alternatives, and provide the opportunity for attendees to ask questions and submit comments. A total of 56 people attended the public meeting.

The meeting was held on Tuesday, Nov. 18, 2014, from 5:30 to 7:30 p.m. (with a presentation at 5:45 p.m.) at Mary Welty Elementary School Cafeteria/Multi-Purpose Room, 1050 West Cimarron Street, Nogales, AZ 85621

2.5 Website

The project website was developed, and the web address was published on all informational materials. Public meeting information and project details were provided on the website: azdot.gov/SR189.

3.0 Public Meeting Format

The public meeting began with registration at the door, where attendees were asked to sign in and were provided various handouts. The sign-in sheets were created solely for the purpose of updating the mailing list. An open house then began, where attendees were encouraged to walk around the various stations, view the displays, and ask questions of project staff. A formal presentation was provided by ADOT. After the presentation, attendees were given the opportunity to ask questions as well as revisit the stations.

3.1 Display Boards

A display board was created for each of several topics considered to be of interest to the public. The boards provided at the meeting covered the following topics:

- Alternative A: Diamond with Flyover
- Alternative B: Diamond with Flyover and Southeast Quadrant
- Alternative C: Diamond with Inside Flyover
- Alternative D: Diamond with Inside Flyover and Grade
- Alternative E – Single Point Urban Interchange (SPUI)
- Alternative F – Diverging Diamond Interchange (DDI)
- Study Process and Schedule

A copy of the display boards provided at the meeting can be found in Appendix C of this report.

3.2 Presentation

A presentation was given to attendees at 5:45 p.m. The presentation can be found in Appendix D and covered the following topics:

- Meeting Purpose
- Project Development and Study Process
- Purpose and Need
- Study and Proposed Alternatives
- Technical Analysis
- Public Feedback
- Next Steps
- Q&A

4.0 Public Comment Summary

This section presents a summary of the comments received during the comment period. The comments received focused on traffic control, safety and alternatives. Duplicate comments are summarized here as one comment. Comments were classified into the following categories:

- Traffic Management
- Safety Concerns
- Proposed Study Alternatives
- New proposal for connections between I-19 and port
- Traffic Interchange Ramp Option Alternatives

All comments received were reviewed for the specific issues or recommendations raised by the commenter. During the comment period, comments could be submitted in a variety of ways, by mail, telephone, e-mail, and online. A total of 12 comments were received as of Dec. 2, 2014 and are included in Appendix E.

4.1 Summary of Comments

A quantification of comments by issue is provided below in Figure 3 with a summary of issues and responses followed below.

Figure 1: Comments received by topic

Category	Comments Received for this Category*
Traffic Management	10
Safety Concerns	2
Proposed Study Alternatives	1-Alt 1; 2-Alt 3; 1 New Alternative
TI Ramp Option Alternatives	2-Alt A; 2-Alt B; 0-Alt C; 1-Alt D; 1-Alt E; 2-Alt F

**Responses may have included more than one issue*

Traffic Management

A majority of the comments related to traffic management. A sample of the comments included:

- Relieving traffic congestion on Frank Reed Road near the high school
- Heavy truck traffic through the area
- Signals imperative at SR 189 and Target Range Road; new warehouse going in
- Long term: Develop a flyover to move trucks to I-19 and personal vehicles flyover to connect directly
- Option D should be phased to allow for ramp construction to occur first, followed by intersection improvements west of I-19 and south to international border; if funding allows, intersection improvements east of I-19 to Grand Avenue can be built; will allow for increased flow of trucks of 3000/day.
- Significant improvement in the Eastbound SR-189 to Northbound I-19 movements: 1) Extended left turn timing – seemed to nearly double the capacity. A significant improvement for little cost. Thank you!! 2) Double left turn lane – added significant additional capacity without a major rebuild. The traffic slows on the ramp as it merges into a single merge lane, but I understand that this was a budget-benefit tradeoff

Safety Concerns

Comments were received about safety concerns. A sample of the comment is below:

- Traffic flow near high school during construction
- Produce trucks can overturn on the ramps so a safe and slow merge is needed from SR 189 to NB I-19 ramp
- Hazard materials trucks go through SR 189 between Grand Avenue and the port and TI options should address this

Proposed Study Alternatives

- Alternative 1 makes sense
- Alternative 1 is a major error
- Alternative 3 would be best for commercial vehicles only
- Alternative 3 is a better option and businesses will not lose revenue with this option
- New proposal for connections between I-19 and port

TI Ramp Option Alternatives

- Alternative A – best option for increase of trucking industry
- Alternative B will address traffic exiting SB I-19 entering NB I-19; safer for produce trucks



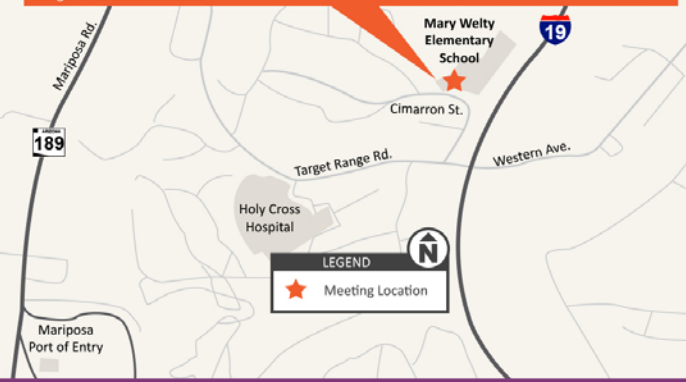


Alternative C – 2nd choice: The related improvements that need to be part of the plan are:

- A half interchange at Frank Reed Rd plus I-19 Frontage roads between SR-189 and Frank Reed Rd. Consider that there is a significant amount of high school and commuter traffic mixing with the heavy commercial traffic at SR-189 & Frank Reed Rd as well as SR 189 & I-19. This is a significant contribution to the load on the subject SR-189 & I-19 interchange. With this improvement much of this non-commercial traffic would be able to use Frank Reed Rd instead of the SR 189 & I-19 interchange and would reduce turning movements at SR-189 & Grand Ave, especially the heavy east-to-north left turn movements.
- A connection from SR-189 to I-19 at the Mariposa Port of Entry (POE) should really have been part of the port expansion plan, as it could have tied into the port design. This WILL eventually be the long term solution and should be acknowledged in our current planning, will relieve the SR-189 & I-19 TI from much of the traffic departing to the north, and will significantly reduce traffic on SR-189 west of I-19. It could provide a needed tie between Mariposa and DeConcini ports (much of this traffic goes through the SR-189 & I-19 TI now). These improvements and other options are depicted on the Western Nogales Development Vision – Transportation plan:

<https://dl.dropboxusercontent.com/u/21319339/Western%20Development%20Vision/WDV%203%20Transportation%20and%20Regional%20Detention%20Assuming%20Public%20Streets.pdf> or at: <http://barrtrust.com/us/az/nogales/WNDV/wndv.html>

- Alternative D – will cut down congestion; cheaper; eliminates mix of pedestrian, commercial vehicles and inexperienced drivers at Frank Reed Road TI.
- Alternative F – is simple and cheap; appears to be the best improvement vs. cost option.

Appendix A

 PLEASE JOIN US PUBLIC MEETING	 POR FAVOR ACOMPAÑENOS REUNION PUBLICA	
State Route 189: International Border to Grand Avenue Study WE NEED YOUR INPUT! <p>The Arizona Department of Transportation and Federal Highway Administration invite you to attend a public meeting to learn about and provide input on the SR 189 study, locally known as Mariposa Road.</p>	Ruta Estatal 189: Frontera Internacional hasta la Avenida Grand ¡NECESITAMOS SU OPINION! <p>El Departamento de Transportación de Arizona y la Administración Federal de Carreteras los invitan a participar en una reunión pública para averiguar y discutir el estudio sobre la Ruta Estatal 189, conocida en la comunidad como Calle Mariposa.</p>	
THE STUDY: <ul style="list-style-type: none"> ▸ Evaluates SR 189 between the Mariposa Port of Entry and Grand Avenue ▸ Includes the Mariposa Road traffic interchange, Frank Reed Road and Grand Avenue intersections ▸ Study Deliverables include Environmental Assessment and Design Concept Report ▸ Assesses potential improvements to accommodate and improve traffic flow throughout the study area 	<div data-bbox="438 609 755 850"> MEETING LOCATION When: Tuesday, Nov. 18, 2014 5:30 to 7:30 p.m. Presentation at 5:45 p.m. A question and answer session will follow the presentation. Where: Mary Welty Elementary School Cafeteria/Multi-Purpose Room 1050 West Cimarron Street Nogales, AZ 85621 From I-19, exit on Western Avenue, turn west and immediately right onto N. Cimarron Street. Road name changes to W. Cimarron Street. </div> <div data-bbox="771 609 1079 850"> EL LOCAL DE JUNTAS Cuando: Martes, 18 de noviembre, 2014 5:30 a 7:30 p.m. Presentación a las 5:45 p.m. Habrá un sesión de preguntas y respuestas después de la presentación. Dónde: Escuela Primaria de Mary Welty Cafetería/cuarto multiuso 1050 West Cimarron Street Nogales, AZ 85621 Desde la I-19, use la salida en Western Avenue, hacia al oeste y luego inmediatamente a la derecha en N. Cimarron street. Nombre de la calle cambia a W. Cimarron Street. </div> 	EL ESTUDIO: <ul style="list-style-type: none"> ▸ Evalúa la Ruta Estatal 189 entre el Puerto de Entrada Mariposa y Avenida Grand ▸ Incluye los cruces de Calle Mariposa, Calle Frank Reed y Avenida Grand ▸ Los resultados del estudio incluyen evaluación ambiental y el informe del diseño de concepto ▸ Examina mejoramientos para adaptarse con el tráfico del puerto nuevo y mejorar la circulación de tráfico a través de la zona del proyecto EL PROPOSITO DE LA REUNION ES: <ul style="list-style-type: none"> ▸ Presentar una actualización sobre el proceso del estudio y el programa ▸ Presentar análisis técnico para la Ruta Estatal 189
THE PURPOSE OF THE MEETING IS TO: <ul style="list-style-type: none"> ▸ Provide an update on the study progress and schedule ▸ Present technical analysis for SR 189 ▸ Receive comments and suggestions <p>Study team members and translators will be available before and after the presentation to provide information and answer your questions.</p>	<ul style="list-style-type: none"> ▸ Recibir comentarios y sugerencias ▸ Responder a preguntas <p>Miembros del equipo del estudio y traductores estarán disponibles antes y después de la presentación para dar información y responder a sus preguntas.</p>	
ADDITIONAL INFORMATION: <p>Public comments are an important part of the study and are welcome at any time for review and consideration. To be included in the summary of this meeting, written comments must be received by Dec. 2, 2014. For additional information, or to submit comments in writing, please contact projects@azdot.gov.</p> <p>Americans with Disabilities Act: Persons with a disability may request reasonable accommodation by calling 855.712.8530. Requests should be made by Nov. 10, 2014. Any notice in another language other than English are translations of the original text written in English. These translations are not official and are not binding to the state or political subdivision of this state.</p>	INFORMACION ADICIONAL: <p>Los comentarios públicos son muy importantes para este estudio y son bienvenidos a cualquier tiempo para revisión y consideración. Para ser incluido en el informe resumen de esta reunión, los comentarios escritos deben ser recibidos antes del 2 de diciembre de 2014. Para obtener información adicional o para someter comentarios por escrito, por favor contacte projects@azdot.gov.</p> <p>Ley de Estadounidenses con Discapacidades: Las personas con una discapacidad pueden solicitar una acomodación razonable contactando 855.712.8530. Las solicitudes deben hacerse antes del 10 de noviembre de 2014.</p> <p>Cualquier aviso en otro idioma que no sea ingles son traducciones del texto original escrito en ingles.</p> <p>Estas traducciones no son oficiales y no son vinculantes a este estado o subdivisión política de este estado.</p>	
<p>ADOT Project No.: 189 SC 000 H8045 01L Federal Aid No.: 189-A(201)A</p>  	<p>14-450</p> <p>FOR MORE INFORMATION/PARA OBTENER MÁS INFORMACIÓN: azdot.gov/SR189</p>	

Appendix B

PLEASE JOIN US

PUBLIC MEETING

STATE ROUTE 189: INTERNATIONAL BORDER TO GRAND AVENUE STUDY

WE NEED YOUR INPUT!

The Arizona Department of Transportation and Federal Highway Administration invite you to attend a public meeting to learn about and provide input on the SR 189 study, locally known as Mariposa Road.

POR FAVOR ACOMPAÑENOS

REUNION PUBLICA

RUTA ESTATAL 189: FRONTERA INTERNACIONAL HASTA LA AVENIDA GRAND

¡NECESITAMOS SU OPINION!

El Departamento de Transportación de Arizona y la Administración Federal de Carreteras los invitan a participar en una reunión pública para averiguar y discutir el estudio sobre la Ruta Estatal 189, conocida en la comunidad como Calle Mariposa.

THE STUDY:

- Evaluates SR 189 between the Mariposa Port of Entry and Grand Avenue
- Includes the Mariposa Road traffic interchange, Frank Reed Road and Grand Avenue intersections
- Study Deliverables include Environmental Assessment and Design Concept Report
- Assesses potential improvements to accommodate and improve traffic flow throughout the study area

THE PURPOSE OF THE MEETING IS TO:

- Provide an update on the study progress and schedule
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Study team members and translators will be available before and after the presentation to provide information and answer your questions.

MEETING LOCATION

When: Tuesday, Nov. 18, 2014
5:30 to 7:30 p.m. Presentation at 5:45 p.m.
A question and answer session will follow the presentation.

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ADOT Project No.: 189 SC 000 H8045 01L Federal Aid No.: 189-A(201)A

EL ESTUDIO:

- Evalúa la Ruta Estatal 189 entre el Puerto de Entrada Mariposa y Avenida Grand
- Incluye los cruces de Calle Mariposa, Calle Frank Reed y Avenida Grand
- Los resultados del estudio incluyen evaluación ambiental y el informe del diseño de concepto
- Examina mejoramientos para adaptarse con el tráfico del puerto nuevo y mejorar la circulación de tráfico a través de la zona del proyecto

EL PROPOSITO DE LA REUNION ES:

- Presentar una actualización sobre el proceso del estudio y el programa
- Presentar análisis técnico para la Ruta Estatal 189
- Recibir comentarios y sugerencias
- Responder a preguntas

Miembros del equipo del estudio y traductores estarán disponibles antes y después de la presentación para dar información y responder a sus preguntas.

ADDITIONAL INFORMATION:

Public comments are an important part of the study and are welcome at any time for review and consideration. To be included in the summary of this meeting, written comments must be received by Dec. 2, 2014. For additional information, or to submit comments in writing, please contact projects@azdot.gov.

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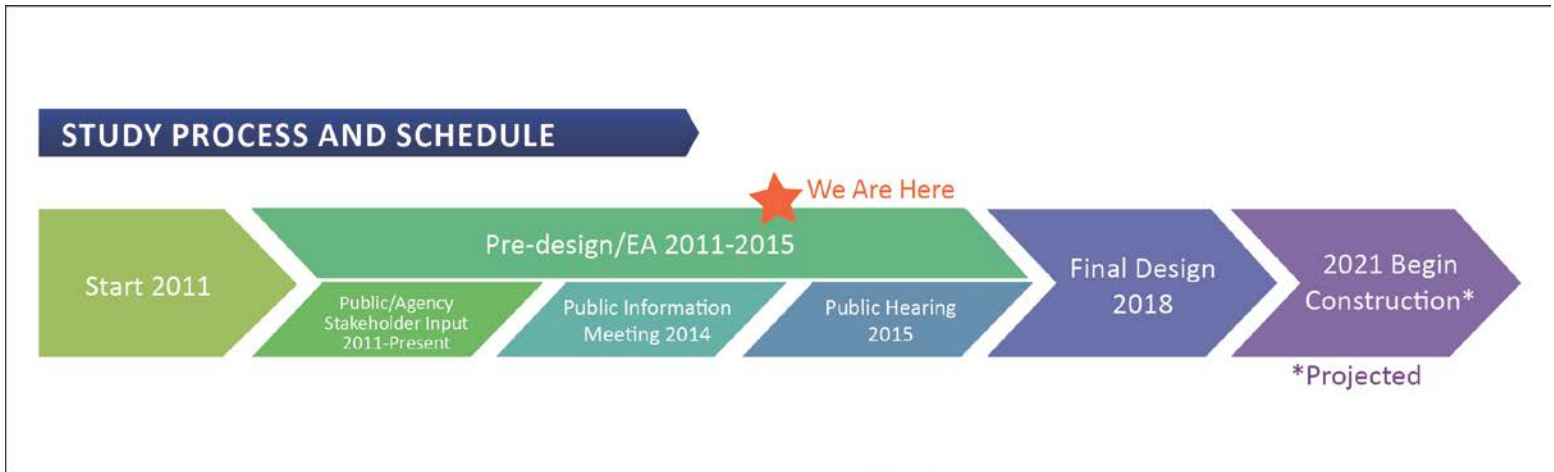
ROD LANE
ADOT Tucson District
Engineer

CARLOS LOPEZ
ADOT
Project Manager

DALLAS HAMMIT
ADOT
Interim State
Engineer

FOR MORE INFORMATION/PARA OBTENER MÁS INFORMACIÓN:
azdot.gov/SR189

Appendix C: Study Process and Schedule

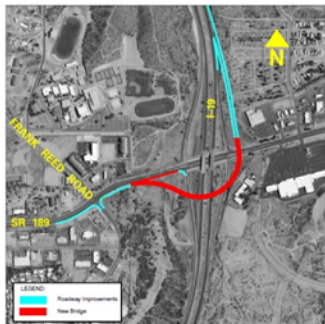


Appendix C: Alternatives



The following is a detailed description of each of the six TI configurations being considered.

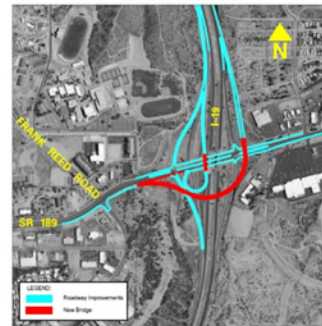
Alternative A – Diamond with Flyover



Alternative A consists of a flyover ramp from eastbound SR 189 to northbound I-19. The flyover is a two lane ramp that merges into one lane before entering northbound I-19. The entrance to the flyover is located east of the Frank Reed Road/SR 189 intersection. The entrance to northbound I-19 from the flyover ramp is located

north of the existing northbound I-19 entrance ramp. The entrance and exit ramp merges occur on the outside. Improvement along SR 189 includes widening in the eastbound direction west of the Mariposa TI to add a third through lane. Reconstruction or widening of the Mariposa Wash bridge structure is required to accommodate the flyover bridge structure.

Alternative B – Diamond with Flyover and Southeast Quadrant Loop Ramp



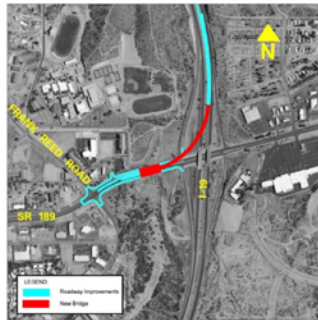
Alternative B consists of a flyover ramp from eastbound SR 189 to northbound I-19. The flyover is a two lane ramp that merges into one lane before entering northbound I-19. The entrance to the flyover is located east of the Frank Reed Road/SR 189 intersection. The entrance to northbound I-19 from the flyover ramp is located

north of the existing northbound I-19 on-ramp. The entrance and exit ramp merges occur on the outside. This alternative would modify the southbound I-19 exit and entrance ramps. The southbound I-19 ramp/crossroad intersection is reconstructed west of the existing location. Reconstruction of the intersection allows room for the loop ramp which would allow vehicles to avoid the left turn movement to head east on SR 189. Improvement along SR 189 includes widening in the eastbound and westbound direction east and west of the Mariposa TI to add a third through lane. Reconstruction or widening of the Mariposa Wash bridge structure is required to accommodate the flyover bridge structure.





Alternative C – Diamond with Inside Flyover

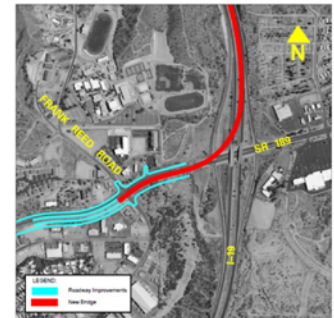


Alternative C consists of a flyover ramp from eastbound SR 189 to northbound I-19. The flyover is a one lane ramp entering northbound I-19. The entrance to the flyover is located east of the Frank Reed Road/SR 189 intersection. The entrance to northbound I-19 from the flyover ramp is located in the median of northbound I-

19. The entrance and exit ramp merges occur on the inside. Improvement along SR 189 includes widening west of the Mariposa TI to accommodate the flyover structure. Reconstruction or widening of the Mariposa Wash bridge structure is required to accommodate the flyover bridge structure.

Alternative D – Diamond with Inside Flyover and Grade Separation at Frank Reed Road

Alternative D consists of a flyover ramp from eastbound SR 189 to northbound I-19 and also from southbound I-19 to westbound SR 189. The flyover is a one lane directional ramp in each direction entering and exiting I-19. The flyover entrance and exit is located west of the Frank Reed Road/SR 189 intersection. At the Frank



Reed Road intersection, the flyover ramp will be grade separated from the intersection. The entrance and exit to I-19 from the flyover ramp is located in the median north of the Mariposa TI. The entrance and exit ramp merges occur on the inside. Improvement along SR 189 includes widening west of the Mariposa TI to accommodate the flyover structure. Reconstruction or widening of the Mariposa Wash bridge structure is required to accommodate the flyover bridge structure.



Appendix C: Alternatives, cont.



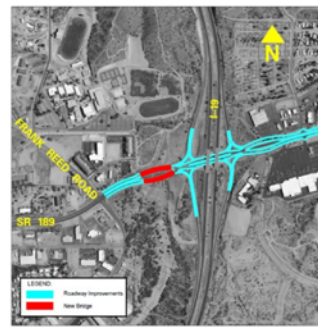
Alternative E – Single Point Urban Interchange (SPUI)



Alternative E consists of shifting the ramp/crossroad intersections toward the center of the interchange. The existing I-19 bridges are two-span. Going with this configuration would require reconstruction of the I-19 bridge to a one span structure. Due to the increased span, the bridge structure will also be increased and the I-19

profile would need to be raised to accommodate the change in vertical clearance. Widening of the Mariposa Wash bridge may be required to accommodate the SPUI configuration.

Alternative F – Diverging Diamond Interchange (DDI)



This alternative diamond interchange moves the cross street traffic to the left side of the roadway between the signalized ramp intersections. The left-turn signal phase at the ramp terminals is eliminated. Vehicles on the cross street wanting to turn left are allowed to continue to the ramps without conflicting with opposing through

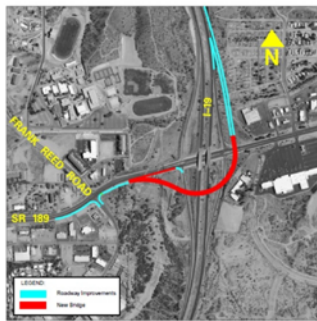
traffic and without stopping. DDIs appear to be most applicable where there are heavy left turns onto the ramps or moderate to heavy left turns from the ramps. (ADOT 2012) Improvement along SR 189 includes widening west and east of the Mariposa TI to accommodate the DDI configuration. Reconstruction of the bridge over Mariposa Wash is also required to accommodate the DDI configuration.





The following is a detailed description of each of the six TI configurations being considered.

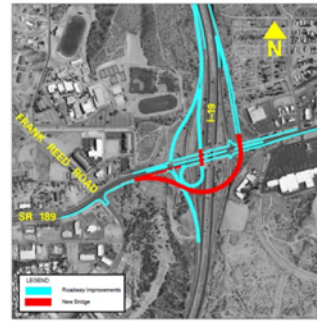
Alternative A – Diamond with Flyover



Alternative A consists of a flyover ramp from eastbound SR 189 to northbound I-19. The flyover is a two lane ramp that merges into one lane before entering northbound I-19. The entrance to the flyover is located east of the Frank Reed Road/SR 189 intersection. The entrance to northbound I-19 from the flyover ramp is located

north of the existing northbound I-19 entrance ramp. The entrance and exit ramp merges occur on the outside. Improvement along SR 189 includes widening in the eastbound direction west of the Mariposa TI to add a third through lane. Reconstruction or widening of the Mariposa Wash bridge structure is required to accommodate the flyover bridge structure.

Alternative B – Diamond with Flyover and Southeast Quadrant Loop Ramp



Alternative B consists of a flyover ramp from eastbound SR 189 to northbound I-19. The flyover is a two lane ramp that merges into one lane before entering northbound I-19. The entrance to the flyover is located east of the Frank Reed Road/SR 189 intersection. The entrance to northbound I-19 from the flyover ramp is located

north of the existing northbound I-19 on-ramp. The entrance and exit ramp merges occur on the outside. This alternative would modify the southbound I-19 exit and entrance ramps. The southbound I-19 ramp/crossroad intersection is reconstructed west of the existing location. Reconstruction of the intersection allows room for the loop ramp which would allow vehicles to avoid the left turn movement to head east on SR 189. Improvement along SR 189 includes widening in the eastbound and westbound direction east and west of the Mariposa TI to add a third through lane. Reconstruction or widening of the Mariposa Wash bridge structure is required to accommodate the flyover bridge structure.



Appendix C: Alternatives, cont.



A summary of each TI alternative, based on its relative strength and weakness against the criteria, is presented in Table 1.

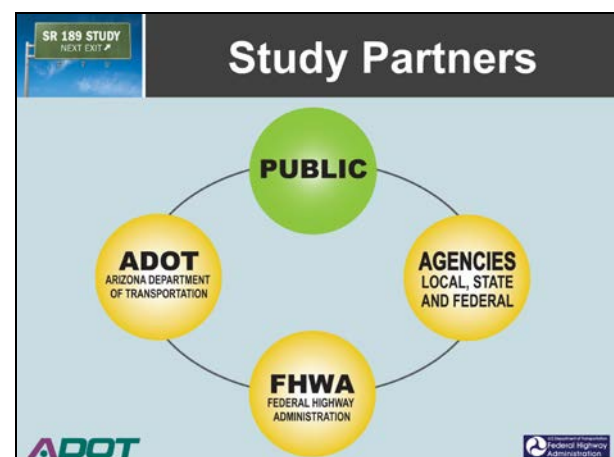
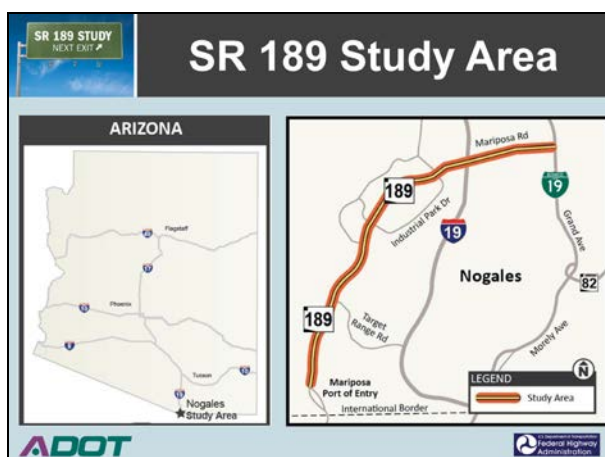
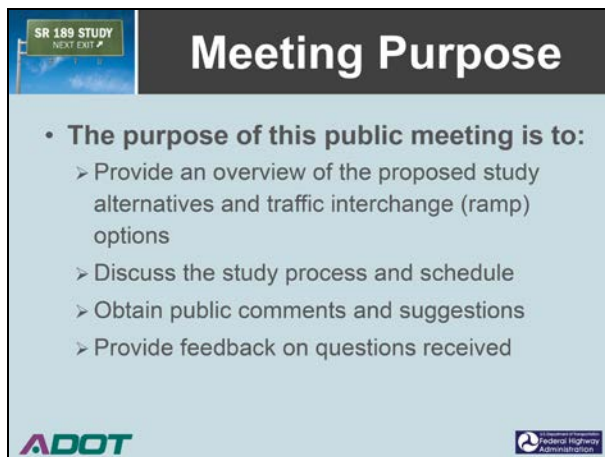
Table 1 Stage II evaluation criteria and rating scale summary


Evaluation category		TI Alternative					
		A	B	C	D	E	F
1	Traffic operations	◐	◑	◑	◑	○	◑
2	Pedestrian and Bike Travel	○	○	●	●	◑	◑
3	Route Continuity	●	●	●	●	○	○
4	Environmental Impacts	◐	◑	◑	◑	◑	◑
5	Cost	◐	◑	◑	◑	◑	◑
6	Implementation	●	◑	◑	○	◑	◑
7	Design Considerations	◐	◑	○	◑	◑	◑

Weakness ○ ◐ ◑ ◑ ● Strength





Appendix D

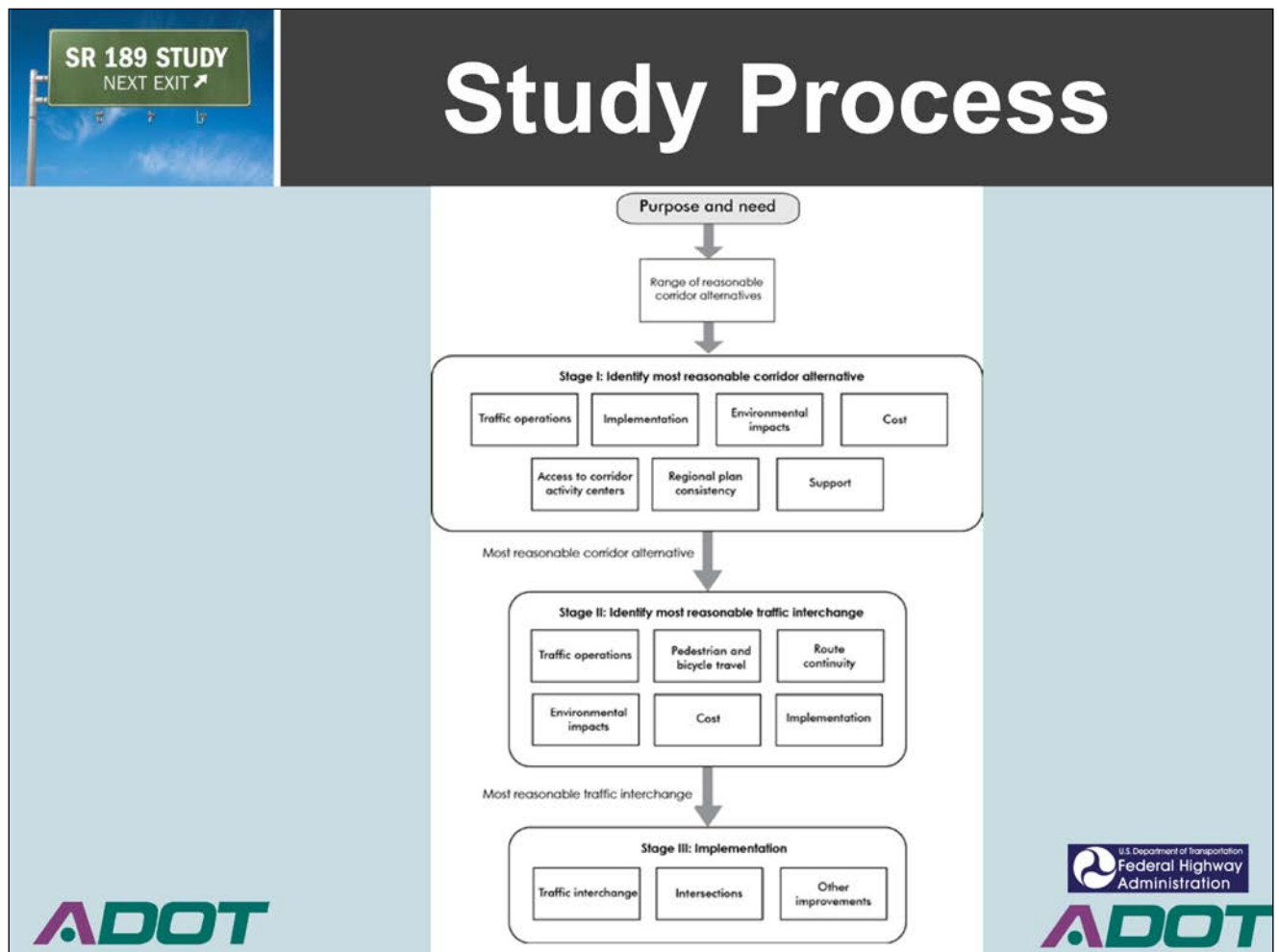


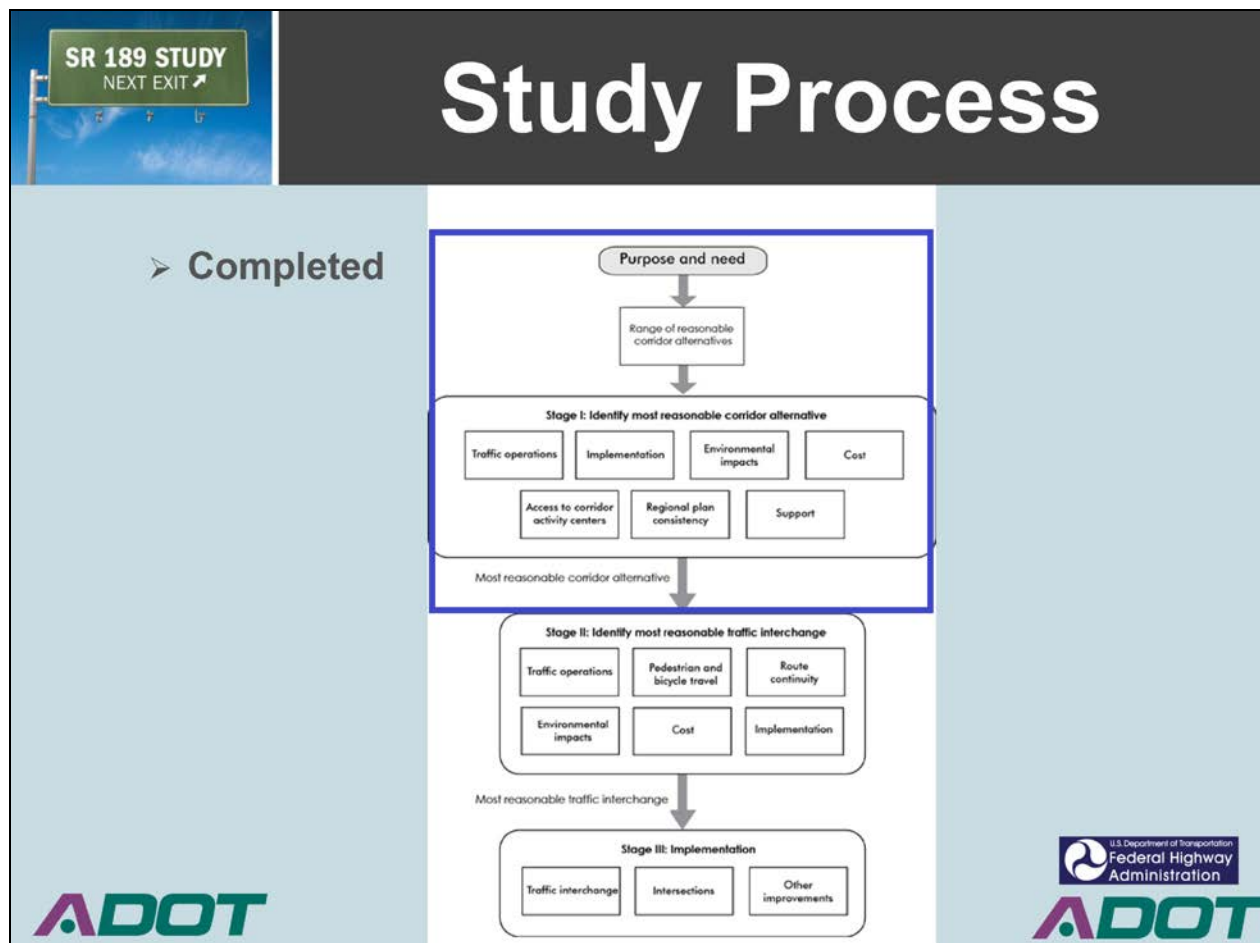


SR 189 Study Deliverables

- Recommended Improvements along SR 189 (Mariposa Road)
- Ramp Improvements at SR 189 and Interstate 19 Traffic Interchange
- Environmental Assessment (EA) that will document environmental considerations related to recommendations







SR 189 STUDY
NEXT EXIT ➔

Purpose and Need

- Provide sufficient capacity and efficient operational characteristics on SR 189 to accommodate the expansion of the Mariposa Port of Entry
- Reduce vehicle conflicts by implementing access management controls and intersection improvements
- Advance Transportation Planning Objectives

ADOT U.S. Department of Transportation Federal Highway Administration

SR 189 STUDY
NEXT EXIT ➔

Stage I: Corridor Alternatives

- Alternative #1: Corridor Management
- Alternative #2: Expressway Alternative
- Alternative #3: Connector Route

(Presented in May 2012)

ADOT U.S. Department of Transportation Federal Highway Administration

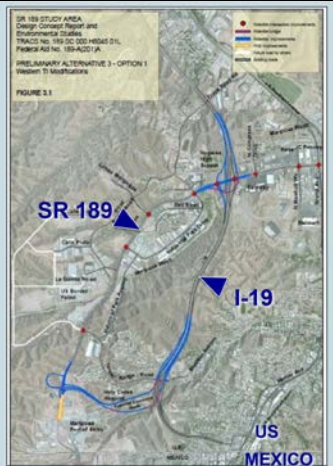
Alternative #1 Corridor Management Alternative



Alternative #2 Expressway to Interstate 19



Alternative #3 Connector Route



Stage I: Analysis

- Agency Meetings - 2011 to Current
- Public Meeting – May 2012 (43 members of the public attended)
- Support for Alternative #1
 - Public, City of Nogales, Santa Cruz County, Business Community

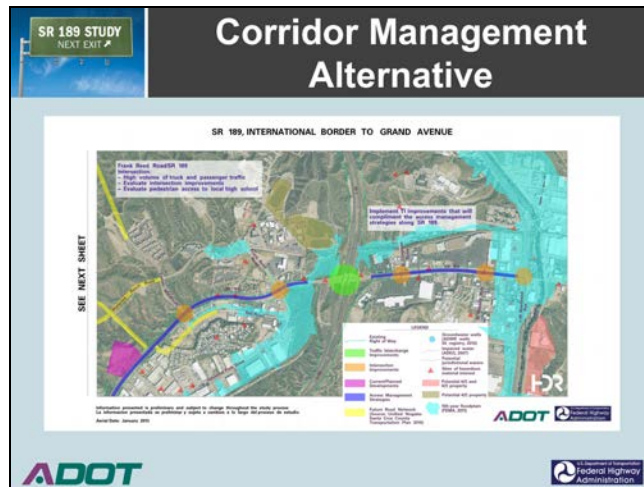
Corridor Management Alternative

- Potential improvements may include:
 - Signalized intersections
 - Spot widening
 - Consolidated access locations
 - Improvements to the SR 189 and I-19 traffic interchange

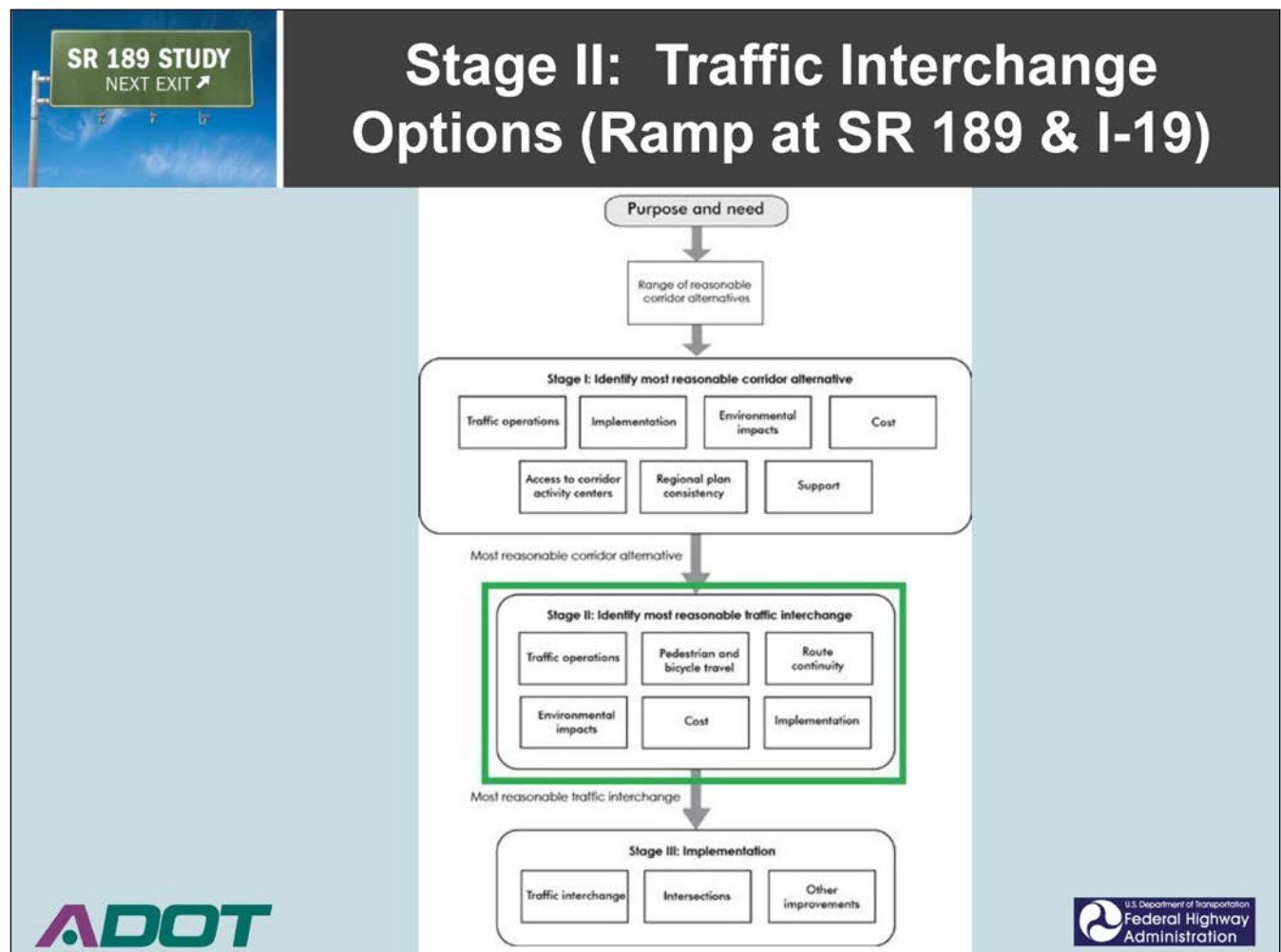
Corridor Management Alternative



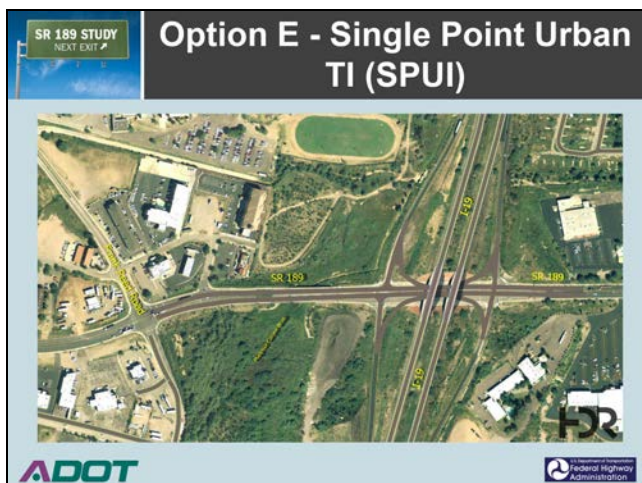
Corridor Management Alternative



Stage II: Traffic Interchange Options (Ramp at SR 189 & I-19)



Appendix D, cont.





Appendix D, cont.

SR 189 STUDY
NEXT EXIT

Stage II: Technical Analysis



- **Evaluation Criteria:**
 - Public and Agency Feedback
 - Traffic Operations
 - Route Continuity
 - Environmental Impacts
 - Cost
 - Implementation



SR 189 STUDY
NEXT EXIT

Public Feedback



- **Tell us:**
 - What do you like/don't like about each potential Ramp Option?
 - What are your concerns with the existing SR 189 (Mariposa Road)?
 - Additional information that may be important to the study or has local importance.

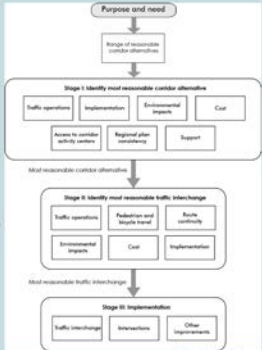


SR 189 STUDY
NEXT EXIT

Next Steps

- **Schedule**
 - Alternative Screening Document (Early 2015)
 - Draft Environmental Document (Fall 2015)
 - Public Hearing (Fall 2015)
 - Final Environmental Document (Winter 2015/2016)





SR 189 STUDY
NEXT EXIT

Public Input

Please share your comments with us tonight or by **December 2nd, 2014:**

- **Mail:** ADOT Communications
1655 W. Jackson, MD 126F
Phoenix, AZ 85007
- **Email:** projects@azdot.gov
- **Phone:** 855-712-8530
- **Website:** www.azdot.gov/SR189





SR 189 STUDY
NEXT EXIT

Questions and Answers

SR 189 Project Manager:



Carlos D. Lopez
Arizona Department of Transportation
206 S. 17th Avenue
Phoenix, AZ 85007
602-712-4786
CLopez@azdot.gov




SR 189 STUDY
NEXT EXIT

Stay Involved

- **Ask questions**
- **Provide feedback**
 - Fill out comment forms
 - Call ADOT contact
 - Visit www.azdot.gov/SR189





Appendix E

State Route 189: International Border to Grand Avenue Study

YOUR INPUT IS IMPORTANT • SU OPINION ES IMPORTANTE

Submit comments by December 2, 2014 in order to have them included in the project record.
Someta sus comentarios antes del 2 de diciembre de 2014 para que sean incluidos en el documento oficial del proyecto.

Please Print
Por favor, use letra de molde

Name: [Redacted] Email: [Redacted]
Nombre: [Redacted] Correo Electrónico: [Redacted]

Address: [Redacted]
Dirección: [Redacted]

City: [Redacted] State: [Redacted] Zip: [Redacted]
Ciudad: [Redacted] Estado: [Redacted] Código Postal: [Redacted]

General Comments:
Comentarios Generales

When putting in signals on SR 189 ode at Target Range Road and SR189 (Mariposa Rd) is IMPERATIVE. Also there has been increased semi traffic on Target Range Road. Larger signage in English & Spanish might help solve this problem. Of course the law needs to be enforced. Have you studied the effects the new warehouse at Target Range & SR189 will have on traffic flow? Congratulations on a clear and precise presentation.

Contact - Contacto

Mail: Community Relations • 1655 W. Jackson St. • Mail Drop 126F • Phoenix, AZ 85007
Email: Project@azdot.gov • Phone: 855.712.8530

ADOT Arizona Department of Transportation

FOR MORE INFORMATION/ PARA OBTENER MÁS INFORMACIÓN: azdot.gov/SR189
ADOT PROJECT NO. 189 SC 000 H8045 011 • FEDERAL AID NO. 189-A(201)A

State Route 189: International Border to Grand Avenue Study

YOUR INPUT IS IMPORTANT • SU OPINION ES IMPORTANTE

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General Comments:
Comentarios Generales

It seems that the most dangerous area on SR189 is the high school intersection at Frank Reed Road and Altamirita Dr. Diamond with inside flyover and grade separation at Frank Reed Road for the following reasons: (a) It diverts the traffic onto I-19 before Frank Reed Road (b) It would cut down on the congestion at Frank Reed Road (c) It seems that it would be cheaper because it looks like a straight run. Thank you for your presentation.

Contact - Contacto

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State Route 189: International Border to Grand Avenue Study

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Ciudad: [Redacted] Estado: [Redacted] Código Postal: [Redacted]

General Comments:
Comentarios Generales

Option B is preferable to Option A. We need to address existing traffic off Southbound I-17 as well as entering traffic on to northbound I-19. Option E & especially F seem to do this as well.

Thank you for choosing alternative 1. This makes the most sense from a variety of standpoints.

Contact - Contacto

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State Route 189: International Border to Grand Avenue Study

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General Comments:
Comentarios Generales

Alt. B. would be great.

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ADOT Arizona Department of Transportation

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ADOT PROJECT NO. 189 SC 000 H8045 011 • FEDERAL AID NO. 189-A(201)A

Public Meeting Summary

State Route 189: International Border to Grand Avenue Study

YOUR INPUT IS IMPORTANT • SU OPINION ES IMPORTANTE

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General Comments:
Comentarios Generales

*flakke flow to and from Nogales High School
Will be greatly impacted during construction.
What plans are there to minimize congestion and disruption
to school operations?*

Contact • Contacto

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ADOT Arizona Department of Transportation

State Route 189: International Border to Grand Avenue Study

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City: [Redacted] State: [Redacted] Zip: [Redacted]
Ciudad: [Redacted] Estado: [Redacted] Código Postal: [Redacted]

General Comments:
Comentarios Generales

*- OPTION A - Flyover sounds the best option
TAKING INTO CONSIDERATION THE GROWING TRUCKING INDUSTRY
FROM MEXICO, PRINCIPALLY IN THE PRODUCE SEASON (BROWNS)
TRUCKS ARE AROUND 65' TO 75' FT IN LENGTH AND IT WOULD
EASILY TAKE CARE OF THE HEAVY TRAFFIC THE FLYOVER, IF IT
STARTS WITH A BRIDGE BEFORE TRUCKS FIND IT WOULD
ADD SAFETY TO HIGH SCHOOL-TRAFFIC AND LOCAL TRAFFIC GOING
EAST.*

Contact • Contacto

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ADOT Arizona Department of Transportation

State Route 189: International Border to Grand Avenue Study

YOUR INPUT IS IMPORTANT • SU OPINION ES IMPORTANTE

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General Comments:
Comentarios Generales

*I would go for alternative #3, the connector
route, to be used by commercial vehicles only
just an exit route from ADOT inspection facility
at Mariposa Port. However, I've heard today
that alternative #1 is the one picked.
If this is the case I would support option A
as to identify the Ramp to connect SR-189 with
E-19, option A, The Diamond with flyover.*

Contact • Contacto

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ADOT Arizona Department of Transportation

State Route 189: International Border to Grand Avenue Study

YOUR INPUT IS IMPORTANT • SU OPINION ES IMPORTANTE

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General Comments:
Comentarios Generales

*I prefer Alternative B, however the SR-19 to East Mariposa ramp will
need to be very generous. Public buses often do not do a good job
narrowing lanes. you will have long shifts creating queues at the ramp.
I do think SR Mariposa Ramp to NB I-19 Ramp should exit onto
the median. Truck acceleration is very slow + this would create
a better merge.*

- Any I-19 SB to WB Mariposa Off Ramp must have
several lanes.*
- I think there was a mild error going with the current plans.
The Alternative B connector route is by far a better option.
Nogales is concerned that they will lose revenue with this bypass; they
will not.*
- We have many I-19 + Mariposa OTR Transports. Currently they run down
Mariposa between Grand + the Port. Options must close the toll restrictions.*
- ALT F may be too complicated for medical truck drivers*

Contact • Contacto

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Email: Project18189@adot.gov • Phone: 855.712.8530

ADOT Arizona Department of Transportation

Public Meeting Summary

State Route 189: International Border to Grand Avenue Study

YOUR INPUT IS IMPORTANT • SU OPINION ES IMPORTANTE

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General Comments:
Comentarios Generales

Strongly prefer Option D. This option eliminates potentially hazardous mix of pedestrian, commercial vehicles, RV's, and inexperienced drivers at the Frank Reed Road Intersection. Also eliminates 3 traffic signals for North bound I-19 traffic, greatly enhancing the movement of commercial vehicles. This option should be phased to allow for the ramp construction to occur first, followed by the intersection improvements west of I-19 & south to the International Border. If funding allows, the intersection improvements east of I-19 to Grand Avenue could be built. This approach could also allow for the ramp to be built earlier than 2021 and giving way for the increased flow of trucks that will be increased to 3000 trucks per day versus the +/- 1600 trucks per day experienced in the past.

Contact - Contacto

Mail: Community Relations • 1655 W. Jackson St. • Mail Drop 1267 • Phoenix, AZ 85007
Email: Project189@adot.gov • Phone: 855.712.8530

ADOT  

ADOT PROJECT NO. 189 SC 000 H8045 01L • FEDERAL AID NO. 189-A(201)A

State Route 189: International Border to Grand Avenue Study

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Address: [Redacted]
Dirección: [Redacted]



City: [Redacted] State: [Redacted] Zip: [Redacted]
Ciudad: [Redacted] Estado: [Redacted] Código Postal: [Redacted]

General Comments:
Comentarios Generales

*I THINK THE 2 VERMILION PLAN AND SOLUTIONS THE BEST ANSWERS TO OUR NEEDS - FIRST SMOLE AND THE LEAST PENSIVE SOLUTION.
OPTION F: THEN
LONGER TERM DEVELOP FLYOVER TO MOVE TRUCKS TO I-19 AND POSSIBLE PERSONAL VEHICLE RAMP TO CONNECT DIRECTLY.*

Contact - Contacto

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ADOT  

ADOT PROJECT NO. 189 SC 000 H8045 01L • FEDERAL AID NO. 189-A(201)A

SR 189 Study - Comment received through Survey Monkey

Thank you for your hard work and the presentation in Nogales last week. Within the past year two changes have yielded a significant improvement in the Eastbound SR-189 to Northbound I-19 movements: • Extended left turn timing – This alone seemed to nearly double the capacity. A significant improvement for little cost. Thank you!! • Double left turn lane – This has added significant additional capacity without a major rebuild. The traffic slows on the ramp as it merges into a single merge lane, but I understand that this was a budget-benefit tradeoff. Still, it was a good choice. I don't believe throwing large amounts of resources at this single intersection is the best long term solution. Related or staged improvements (noted below) tying in Frank Reed Rd and Western Ave need to be part of the overall long term plan. As such my preferred alternatives are effective lower cost options that could potentially allow resources to be directed at accelerating these related improvements. Of the alternatives presented, I prefer: 1st choice: Alternative F – The DDI appears to be the best improvement vs cost option. 2nd choice: Alternative C – The related improvements that need to be part of the plan are: • A half interchange at Frank Reed Rd plus I-19 Frontage roads between SR-189 and Frank Reed Rd. Consider that there is a significant amount of high school and commuter traffic mixing with the heavy commercial traffic at SR-189 & Frank Reed Rd as well as SR-189 & I-19. This is a significant contribution to the load on the subject SR-189 & I-19 interchange. With this improvement much of this non-commercial traffic would be able to use Frank Reed Rd instead of the SR-189 & I-19 interchange. And it would reduce turning movements at SR-189 & Grand Ave, especially the heavy east-to-north left turn movements. • A connection from SR-189 to I-19 at the Mariposa Port of Entry (POE). This really should have been part of the port expansion plan, as it could have tied into the port design. This WILL eventually be the long term solution and should be acknowledged in our current planning. It will relieve the SR-189 & I-19 TI from much of the traffic departing to the north. It will significantly reduce traffic on SR-189 west of I-19. It could provide a needed tie between Mariposa and DeConcini ports (much of this traffic goes through the SR-189 & I-19 TI now). These improvements and other options are depicted on the Western Nogales Development Vision – Transportation plan:

<https://dl.dropboxusercontent.com/u/21319339/Western%20Development%20Vision/WDV%203%20Transportation%20and%20Regional%20Detention%20Assuming%20Public%20Streets.pdf> or at:

<http://barrtrust.com/us/az/nogales/WNDV/wndv.html> Thank you for your consideration.

NEW PROPOSAL FOR CONNECTIONS BETWEEN I-19 (South of Western Ave) and NEW MARIPOSA PORT

ADVANTAGES:

- Takes all thru truck traffic off Mariposa Road.
- Adds all thru car traffic to Mariposa Road.
- All incoming truck traffic (from Mexico) can exit for local warehouses at Western Ave, Mariposa Road and Ruby Road.
- All incoming car traffic (from Mexico) can proceed directly to the Downtown shopping area by exiting, just South of Western Ave, onto I-19 South.
- Requires no changes to Mariposa Road.
- Requires no changes to Mariposa Road and I-19 Interchange.
- Avoids any possible need for a very expensive "Fly Over".
- Encourages commercial development (sales tax potential) on Mariposa Road between I-19 and new Mariposa Port.
- Much less expensive than any of the other alternatives proposed previously by ADOT.
- Requires minimum disruption during construction period.
 - Requires I-19 to be closed and rebuilt South of the southbound exit ramp to the top of the grade.
 - Requires Western Ave to be closed East of I-19 (no connection to I-19), during construction of 2 new connection lanes between I-19 and new Mariposa Port and 3 new On and OFF ramps to I-19 at Western Ave.
- The need for a very short Toll Road (that most trucks would not use), which would be required to pay for the more expensive alternatives previously proposed by ADOT, can be avoided.

